

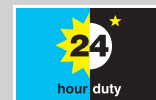
# Qdos 120 Universal and Universal+ pumps with 24V Logic

**qdos120**  
Peristaltic Metering

Watson-Marlow Pumps

## FEATURES AND BENEFITS

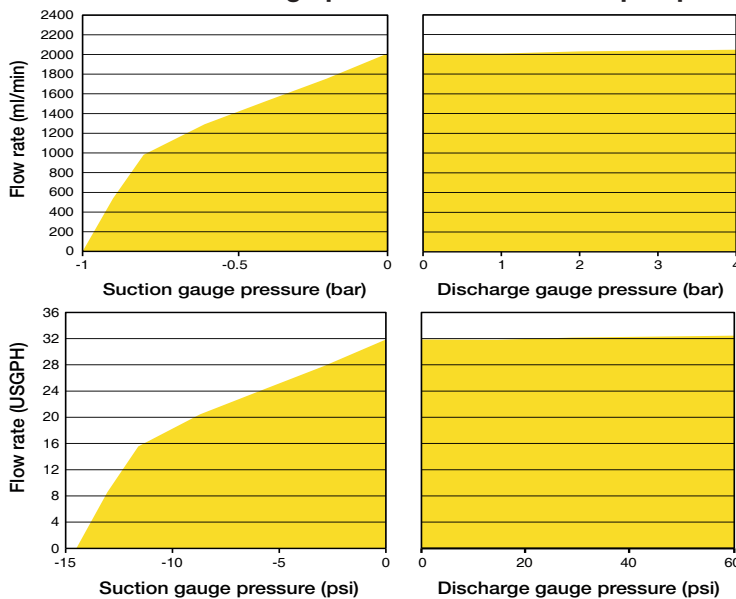
- Flow rates 0.1-2000 ml/min at 4bar (60psi) RMS pressure
- ReNu pumphead provides accurate, linear and repeatable low pulse flow under varying process conditions
- Process uptime is maximised with no gas-locking, no valve blocking and rapid no-tools pumphead replacement
- Flow control 20000:1 with  $\pm 1\%$  accuracy
- Contained pumphead with integral leak detection
- Manual, analog and contact functionality with relay outputs
- Intuitive HMI with 89mm (3.5") color TFT display
- High suction lift ensures self priming and metering of viscous fluids



*Watson-Marlow...Innovation in Full Flow*

## PERFORMANCE

### Flow rate with discharge pressure for ReNu 120 pumpheads



### Qdos 120 pump typical flow rates

	Speed (rpm)	Flow (ml/min)*
ReNu 120 Pumphead	0.006-125	0.1-2000
	Speed (rpm)	Flow (USGPH)*
ReNu 120 Pumphead	0.004-125	0.001-31.7

\*accuracy  $\pm 1\%$ , repeatability  $\pm 0.5\%$

The graphs show the flow performance for pumpheads with Santoprene tubing.

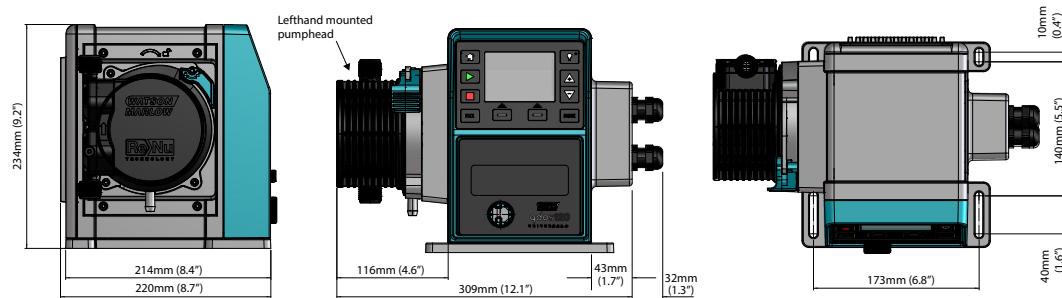
## TECHNICAL DATA

Functionality	Qdos 120 Universal 24V logic	Qdos 120 Universal+ 24V logic
<b>Operational modes</b>		
Manual	•	•
4-20mA	•	•
Contact	•	•
Fluid recovery	•	•
Fault reporting	•	•
Leak detection	•	•
<b>Manual control</b>		
Flow rate range 0.1 to 2000 ml/min (20000:1)	•	•
Numerical flow display	•	•
Numerical speed display	•	•
Numerical percentage of max speed display	•	•
Fluid level monitor	•	•
Max (prime)	•	•
Auto restart	•	•
Fluid recovery	•	•

## TECHNICAL DATA

Functionality	Qdos 120 Universal 24V logic	Qdos 120 Universal+ 24V logic
<b>Remote control</b>		
4-20mA input	•	•
4-20mA output		•
Run stop input	•	•
Run status output	•	•
Alarm output	•	•
<b>Security</b>		
Keypad lock	•	•
PIN lock to protect set up	•	•

## DIMENSIONS



## TECHNICAL SPECIFICATION

Ingress rating	IP66
Enclosure	Watertight / dustproof
Humidity	Non-condensing 5% to 95%
Temperature	5C to 45C (41F to 113F)
Pump weight	Drive: 4.6kg (10lb 2oz) Pumphead: 1.1kg (2lb 7oz)
Control ratio	20000:1 with $\pm 1\%$ accuracy
Noise	< 70dB(A) at 1m
Standard	CE, NSF 61, cETLus
Power supply	Switch mode power supply ~100-240V 50-60Hz 190VA

## MATERIALS OF CONSTRUCTION

Component	Material
Keypad	Polyester
Drive casework	20% Glass filled PPE/ PS
Drive shaft	Stainless steel 440C
Pumphead enclosure	30% Glass filled PPE/PS
Rotor	Glass filled nylon
Rotor bearings	Steel
Tube†	Santoprene (max 4 bar, 60 psi)
Pumphead hydraulic ports	Polypropylene (Santoprene)
Hydraulic connectors	Polypropylene
Lubricant	PFPE based

\*The ReNu Pumphead contains lubricant. It is the user's responsibility to comply with local health and safety regulations, including ensuring chemical compatibility between the lubricant and the duty fluid before use. For guidance refer to [www.wmftg.com/chemical](http://www.wmftg.com/chemical)

## ORDER INFORMATION



**Model**

- 1: Remote
- 3: Manual
- 4: Universal
- 5: Universal+
- 7: PROFIBUS

### Digital I/O type

#### Manual, Remote and PROFIBUS models

L: Standard pump variant

#### Universal and Universal+ models

L: Open collector outputs, 5 - 24V DC inputs  
 H: Volt free 110V AC relay contacts, 110V AC inputs  
 (only available with US mains leads)  
 R: Volt free 24V DC relay contacts, 5 - 24V DC inputs

**Pumphead orientation\***

- L = Left
- R = Right

### Plug options

- A: US
- E: European
- U: UK
- K: Australia
- R: Argentina
- C: Swiss

† For guidance on chemical compatibility see [www.qdospumps.com](http://www.qdospumps.com)

\* The pumphead side location is required when ordering. The left/right perspective assumes the user is looking at the front of the pump. The pump in the dimensions diagram is considered a pumphead located to the left.

### Pumphead product codes

Description	Partcode
ReNu 120 pumphead Santoprene / PFPE 4 bar (60psi)	0M3.4200.PFP

All flow rates shown were obtained pumping water at 20C (68F) with zero suction and delivery heads.  
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**WATSON  
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Pumps**

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